In Memoriam:

Nikolai Kardashev
1932 - 2019
by Doug Vakoch, METI International

Russian astrophysicist and SETI pioneer Nikolai Kardashev passed away on August 3, 2019. Known for the Kardashev scale of extraterrestrial civilizations, in 1963 he conducted the first Soviet search for extraterrestrial intelligence (SETI) by examining the quasar CTA-102 for signs of a technological civilization. In the following year, Kardashev organized the first Soviet conference on communication with extraterrestrial intelligence (CETI) at Byurakan Observatory in Armenia. Also in 1964, Kardashev proposed a scale that now bears his name, which is used for classifying extraterrestrial civilizations in terms of their energy use. Civilizations ranked on the Kardashev Scale range from Type I civilizations capable of using the energy resources of a single planet, to Type II civilizations that use the full energy of a star, to Type III civilizations that have access to the energy of an entire galaxy.

In 1971, along with other Soviet astronomers and American Carl Sagan, Kardashev organized a Soviet-American conference on CETI, also held at Byurakan Observatory. Kardashev became a corresponding member of the USSR Academy of Sciences in 1976, and in 1994 he became a full member of the Russian Academy of Sciences. A decade later, he was awarded the Demidov Prize for his work in astrophysics.
Guest Editorial

Storming Area 51
by Seth Shostak, Senior Astronomer, SETI Institute

From SETI Institute Journey eNewsletter, 1 August 2019, used by permission

More than a million people say they want to scale the fences and assault Area 51, a top-secret Air Force installation hunkered down in the Nevada desert. Their hope is to see the aliens who are supposedly warehoused within. The blitz is scheduled for September 20, so mark your calendars.

Or not. The idea for this effort was birthed on Facebook, and it was clearly intended as a joke. But so was Johnny Carson’s 1973 claim that the U.S. was running out of toilet paper – an offhand attempt at humor that triggered a real shortage. So joke or no, the hordes might really show up at the closely guarded federal facility.

BookMaker, an Internet betting site, is already weighing the odds of a tsunami of citizens storming the chain-links and, if they do, the chances that they’ll find any aliens mothballed inside.

It’s all good fun (unless, perhaps, you’re a security guard for the Air Force.) But should you go? And, really, is there any reason to believe that extraterrestrials are stacked up at Area 51?

The Air Force says a citizen assault would be “dangerous” – a description perfectly chosen to encourage those who believe that what goes on at this hush-hush base is both suspect and probably malevolent. Signs posted around Area 51 somberly note that trespassing will be dealt with harshly, and that deadly force is authorized – as if you’d care whether or not it’s authorized when they winch your body out of the sagebrush.

Of course, secret things do go on at Area 51 – the testing of new military aircraft, for instance. The Air Force is not keen on people making photos. So trying to scale the Area’s ramparts is about as advisable as storming Fort Knox. And even if camo-clad guards aren’t enough to dissuade you, there’s always the desert itself. Daytime temperatures, even in late September, could hover around a sweaty 90 degrees. Refreshment will be hard to find, and the expected crush of people will more or less guarantee you’ll be sleeping in your car or under a creosote bush.

OK, but maybe you’re thinking that pulling the wraps off some aliens would be worth the discomfort. Which, indeed, it would. And Internet jests aside, a lot of people are convinced that the federal government really keeps evidence of extraterrestrial visitors – dead or alive – somewhere. Surveys show that one-third of the American public is convinced that aliens are visiting Earth, and a majority say that the government knows.

However, crashed saucers or broken bodies aren’t on display at the Smithsonian or Roswell’s UFO Museum. So that lack of obvious evidence encourages true believers to take another tack: Namely, claiming that the feds, thanks to their hi-tech equipment and cloak-and-dagger talents, are the only successful gatherers of alien artifacts. And of all the places they could squirrel away this evidence, they’ve chosen southern Nevada.

Frankly, this is a poor argument. Wayfaring aliens are unlike new missiles or Mach 3 fighter jets. Alien spacecraft would, one presumes, be routinely noticed by many of the billions of people who are not employed by the U.S. military, nearly all of whom have cell phones with cameras. Sure, the recently released videos made by some Navy pilots are suggestively mysterious. But they’re ambiguous. And what about the one-hundred thousand commercial flights that take off every day, apparently without the slightest concern with – or notice of – extraterrestrial craft? Does the International Airline Pilots Association offer training on how to deal with aliens in our airspace?

It beggars belief to think that the thousands of employees and contractors who’ve worked at Area 51 in the 7 decades since the celebrated Roswell incident have been capable of keeping news of stockpiled aliens under wraps, despite the fact that it would be the biggest story ever. The oft-repeated argument that secrecy is necessary in order to avoid panicking the populace doesn’t wash. Folks already believe E.T. is here, and they still go to the office every morning.

If nothing else, the suggested blitz of Area 51 demonstrates Nevada’s continuing success in cornering the alien market. In 1996, state officials christened route 375 as the Extraterrestrial Highway. This 100 mile stretch of straightaway, which parallels the northern border of Area 51, might have qualified as the world’s most boring two-hour drive if it weren’t for the fact that some people have seen strange objects in the sky while en route.

It’s also noteworthy that the Nevada Commission on Tourism, which promoted the highway re-branding, didn’t point to the fact that, three years earlier, state senator Richard Bryan had introduced an amendment to cancel the NASA project to search for radio signals from extraterrestrial intelligence. But then again, those aliens would have been light-years away and of little benefit to the Nevada economy.

As for Area 51, the truth may not be out there. But some high-speed aircraft and a lot of prickly pear probably are.

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Event Horizon

SearchLites readers are apprised of the following conferences and meetings at which SETI-related information will be presented. League members are invited to check our World Wide Web site (www.setileague.org) under Event Horizon, or email to us at info@setileague.org, to obtain further details. Members are also encouraged to send in information about upcoming events of which we may be unaware.


September 20, 2019: Storming of Area 51 (see Guest Editorial on previous page).

October 18 - 20, 2019: Capclave 2019, Rockville MD.

October 21 - 25, 2019: 70th International Astronautical Congress, Washington DC.

November 8 - 10, 2019: Philcon 2019, Cherry Hill NJ.

November 10 - 15, 2019: 6th Interstellar Symposium, Wichita, KS.


April 26, 2020, 1300 EDT: Twenty-Sixth SETI League Annual Membership Meeting, Little Ferry, NJ.

May 22 - 26, 2020: Balticon 54 Baltimore Science Fiction society Annual Convention, Baltimore MD.

June 9 - 11, 2020: Global Space Exploration Conference, St. Petersburg, Russia.

July 29 - August 2, 2020: 78th World Science Fiction Convention, Wellington, New Zealand.


August 25 - 29, 2021: 79th World Science Fiction Convention, Washington, DC.

Although he's normally more at home with a guitar, SETI League executive director H. Paul Shuch recently tried his hands at the Theremin. The results, he admits, were less than stellar.

SETI League executive director emeritus H. Paul Shuch and his son Curran Bailey wear matching shirts at one of Paul's recent SETI presentations.

<< SETI League members are encouraged to nominate SETI-relevant websites for our monthly SETI SuperStar Award. Nominating emails to our Awards Committee may be sent to: Awards_at_setileague_dot_org. Please be sure to indicate the URL of the candidate website you are nominating, and a brief explanation as to why you consider the site worthy of recognition.
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